

Amendments to the Claims

Claims 1-3 (Canceled)

Claim 4 (Currently Amended) ~~The magnetic recording apparatus of Claim 1 comprising:~~

_____ a disk-shaped information recording medium on which periodic physical changes providing changes of reflectivity are formed;

_____ a light source operable to output a light beam;

_____ a diffraction element operable to generate three light beams from the light beam outputted by the light source;

_____ a light-converging optical system operable to converge the three light beams generated by the diffraction element on the disk-shaped information recording medium as a microspot;

_____ a photodetection means having three photosensitive parts operable to receive light beams reflected and diffracted by the disk-shaped information recording medium and transmitted through the light-converging optical system, and output signals in accordance with quantities of the received light beams, respectively;

_____ a signal processing means for processing the signals outputted from the photodetection means to output a tracking error signal, the signal processing means including a cancel means for canceling crosstalk that occurs between the signals outputted from the three photosensitive parts of the photodetection means;

_____ a driving means for receiving the tracking error signal outputted from the signal processing means, and determining a position of the light beam on a desired track of the disk-shaped information recording medium; and

_____ a magnetic head operable to record information on the disk-shaped information recording medium, or reproduce or delete information from the disk-shaped information recording medium, wherein

the cancel means comprises:

first and second voltage-dividing means ~~which perform for performing~~ voltage division ~~on an output the signal output respectively~~ from a first photosensitive part of the three photosensitive parts of the photodetection means;

a first differential arithmetic means ~~which performs for performing~~ differential calculation ~~on an output the signal output respectively~~ from a second photosensitive part of the three photosensitive parts of the photodetection means and an output signal from the first voltage-dividing means; and

a second differential arithmetic means ~~which performs for performing~~ differential calculation ~~on an output the signal output respectively~~ from a third photosensitive part of the three photosensitive parts of the photodetection means and an output signal from the second voltage-dividing means.

Claim 5 (Currently Amended) The magnetic recording apparatus of Claim 4, wherein the first and second voltage-dividing means have voltage-dividing ratios approximately equal to ~~the~~ a ratio at which the output signal from the first photosensitive part crosstalks to the output signals from the second and third photosensitive parts.

Claim 6 (Currently Amended) The magnetic recording apparatus of Claim 4, wherein the first and second voltage-dividing means comprise resistors.

Claim 7 (New) A magnetic recording apparatus comprising:

a light source operable to output a light beam;

a diffraction element operable to generate three light beams from the light beam outputted by the light source;

a light-converging optical system operable to converge the three light beams generated by the diffraction element on an information recording medium as a microspot;

a photodetection means having three photosensitive parts operable to receive light beams reflected and diffracted by the information recording medium and transmitted through the light-converging optical system, and output signals in accordance with quantities of the received light beams, respectively;

a signal processing means for processing the signals outputted from the photodetection means to output a tracking error signal, the signal processing means including a cancel means for canceling crosstalk that occurs between the signals outputted from the three photosensitive parts of the photodetection means;

a driving means for receiving the tracking error signal outputted from the signal processing means, and determining a position of the light beam on a desired track of the information recording medium; and

a magnetic head operable to record information on the information recording medium, or reproduce or delete information from the information recording medium, wherein

the cancel means comprises:

first and second voltage-dividing means for performing voltage division on the signal output respectively from a first photosensitive part of the three photosensitive parts of the photodetection means;

a first differential arithmetic means for performing differential calculation on the signal output respectively from a second photosensitive part of the three photosensitive parts of the photodetection means and an output signal from the first voltage-dividing means; and

a second differential arithmetic means for performing differential calculation on the signal output respectively from a third photosensitive part of the three photosensitive parts of the photodetection means and an output signal from the second voltage-dividing means.

Claim 8 (New) The magnetic recording apparatus of Claim 7, wherein

the first and second voltage-dividing means have voltage-dividing ratios approximately equal to a ratio at which the output signal from the first photosensitive part crosstalks to the output signals from the second and third photosensitive parts.

Claim 9 (New) The magnetic recording apparatus of Claim 7, wherein

the first and second voltage-dividing means comprise resistors.